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DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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August 6, 2003

CERTIFIED RETURN RECEIPT
7099 3400 0016 8896 3694

Duane Crutchfield
Ash Grove Cement Company
P.O. Box 51
Nephi, Utah 84648

Re: Initial Review of Revised Notice of Intention to Commence Large Mining Operations, Ash Grove Cement Company, Nielson Sandstone Mine, M/023/012, Juab County, Utah

Dear Mr. Crutchfield:

The Division has completed its review of your draft Revised Notice of Intention to Commence Large Mining Operations for the Nielson Sandstone Mine, located in Juab County, Utah, which was received April 21, 2003. After reviewing the information, the Division has the following comments which will need to be addressed before tentative approval may be granted.

The comments are listed below under the applicable Minerals Rule heading. Please format your response in a similar fashion. **Please address only those items requested in the attached technical review. You may send replacement pages of the original mining notice using redline and strikeout text, so we can see what changes have been made. After the notice is determined technically complete and we are prepared to issue final approval, we will ask that you send us two copies of the complete and corrected plan. Upon final approval of the permit, we will return one copy stamped "approved" for your records.** Please provide a response to this review within 30 days or by September 8, 2003.

The Division will suspend further review of the Neilson Sandstone revised notice until your response to this letter is received. If you have any questions in this regard please contact me, Paul Baker or Doug Jensen of the Minerals Staff. If you wish to arrange a meeting to sit down and discuss this review, please contact us at your earliest convenience. Thank you for your cooperation in completing this permitting action.

Sincerely,

D. Wayne Hedberg
Permit Supervisor
Minerals Regulatory Program

jb
Attachment: Review
O:\M023-Juab\M0230012-NielsonSSQuarry\Final\InitialREV1-08062003.doc

REVIEW OF REVISED NOTICE OF INTENTION TO COMMENCE LARGE MINING OPERATIONS

Ash Grove Cement Company
Neilson Sandstone Mine

M/023/012

R647-4-104 - Operator=s, Surface and Mineral Ownership

Under heading 104.2, the plan says that BLM owns the mineral; under 104.3 it states that Ash Grove owns the mineral. Please clarify. (DJ)

R647-4-105 - Maps, Drawings & Photographs

105.1 Topographic base map, boundaries, pre-act disturbance

Please include section lines on map 105-1 to allow the Division to locate the mine on a USGS quadrangle map (DJ)

On map 105-2 the disturbed area boundary has been outlined, within the pit areas there is an additional outline, is this the pit limits at the completion of mining? Please label this outline accordingly. (DJ)

105.3 Drawings or Cross Sections (slopes, roads, pads, etc.)

Please include a minimum of one east-west and one north-south cross section through each pit. Cross sections should include surface before mining, after mining and after reclamation. (DJ)

R647-4-106 - Operation Plan

106.5 Existing soil types, location, amount

Baseline information about the soils is considered adequate to meet the requirements of this regulation. The application includes information from the soil survey of the Fairfield-Nephi area. Nearly all of the area proposed to be disturbed has Borvant cobbly loam soils. This soil has a surface layer about 10 inches thick and a cemented hardpan at a depth of 10 to 20 inches. It is considered very poorly suited to rangeland seeding because of the hardpan, but from all indications, the surface layer should be suitable. Although the subsoil is not ideal, it should work as a subsoil if the hardpan layers are broken up. (PBB)

Please show on the site maps, the locations of all soil stockpiles that will exist on the site, including the soil berms that will be located above pit 1. Please indicate the approximate volume (cu/yds) of soil to be stored in each stockpile. (DJ)

Also indicate approximate quantities of other materials (silica, iron ore, slag, etc) in stockpiles that will normally be stored at the site and show their locations on maps. The surety calculations should include a contingency to remove or reclaim these stockpiled materials should the site be abandoned by Ash Grove. (DJ)

The plan indicates that iron ore and slag will be stored temporarily on the site. What is the mineral form of the ore, and is there a potential for acid drainage emanating from these stockpiles? (DJ)

106.6 Plan for protecting & redepositing soils

The application says that, at a minimum, six inches of soil will be removed and stockpiled from the areas to be disturbed. The total salvage volume for the entire disturbed area is anticipated to be 93,330 cubic yards, but a calculation of six inches of soil over the 132.1 acres of disturbance comes to 106,560 cubic yards. Please correct this discrepancy or provide an explanation why these figures do not match. (DJ & PBB)

The application indicates there will be no waste materials, but the soil survey information says the soil depth is 60 inches and more. Only six inches of soil will be salvaged, but the plan does not indicate what will happen to the remaining soils which the Division assumes would be classified as waste. Are the soils below the salvaged soil used as a product, or are they handled as overburden and put back in the mine area or in a dump? The subsoil has various hardpan layers, so it is probably not suitable for use as a topsoil although it would be acceptable as a subsoil (since that's what it is now). (PBB)

The application needs to discuss the nature of the material over which the topsoil will be placed at the time of reclamation. Six inches of soil by itself is not an adequate growth medium. Will this soil be placed over the subsoil or other overburden, or will it be put on rock? (PBB)

Section 106.6 of the application indicates soil was salvaged from a portion of Pit 1 and pushed into a windrow at the boundary of the proposed pit development area. The location of this windrow needs to be shown on a map. (DJ & PBB)

106.9 Location & size of ore, waste, tailings, ponds

A claim map (Map 104-1) is mentioned in relation to the location of pit 2. We were unable to locate this map in the plan. Please provide a copy of the map. (DJ)

The plan says there are a number of unimproved roads have been constructed on the site used to access various areas of the pit, with "as needed" maintenance performed. If these roads were constructed to support the mining activities at the site and if they are not consumed by mining, they will need to reclaimed during closure. The cost to reclaim these features should be included in the reclamation surety (minimal reclamation would be; ripping to remove compaction and seeding, providing soils have not been removed during construction). Please show the location of these roads on a site map and include a description in the plan. (DJ)

R647-4-107 - Operation Practices

107.1 Public safety & welfare

107.1.14 Posting warning signs

Because blasting occurs at the site, a blasting protocol should be posted at the entrance to inform the public. Please include a copy as a part of this application. (DJ)

107.2 Drainages to minimize damage

This section states that riprap will be placed on the downstream outlet areas to minimize erosion. Please indicate the size and extent of these features and state the plan for the reclamation of these features when no longer required for mining operation. (DJ)

R647-4-110 - Reclamation Plan

110.2 Roads, highwalls, slopes, drainages, pits, etc., reclaimed

Drilling and blasting the existing highwall in pit 1 will produce enough material to establish 3:1 slopes. Please indicate the route that will be used to support these drilling and blasting efforts. (DJ)

The plan states some roads will be left to access the site to check reclaimed areas. The Division recommends that all access to the site be reclaimed during mine closure. This will minimize the possibility of public access to the reclaimed portions of the site. (DJ)

According to the application, the asphalt removed from roads on site may be buried on the site. Burial of asphalt on site will need to be approved by the property owner (BLM). If the option to remove the asphalt is chosen, these additional costs should be included in the surety estimate. (DJ)

110.5 Revegetation planting program

All on site ripping should be done parallel to the contour to enhance water retention and revegetation success. (DJ)

Following soil application but before seeding, hay and/or straw or a substitute with high organic matter content will be incorporated into the soil at a rate of two tons per acre. The mulch will be incorporated by plowing along the contour, gouging, or a combination of these methods. Gouging should be an effective way to incorporate the mulch, but ripping should be used instead of plowing. The ripper bars may have a tendency to gather the straw or hay, but they could be lifted occasionally to drop any that accumulates. (A plow would have the same problem.) (PBB)

The species in the seed mix in Table 110-1 are adapted to the area. The plan says the seed will be drilled or hydroseeded. Most species in the mix are more likely to become

established if they are drilled as long as they are not drilled too deeply, but Sandberg bluegrass should not be drilled. The application should contain a commitment to broadcast seed of Sandberg bluegrass in those areas where drilling is the primary seeding method. The application should also specify the drilling depth which should be no more than about ½-1 inch. (PBB)

Seed should not be drilled in areas gouged by a trackhoe. and the application needs to include this commitment. (PBB)

R647-4-111 - Reclamation Practices

111.2 Reclamation of natural channels

Please include the cost of installation and removal of the silt fences in the surety estimate. (DJ)

111.7 Highwalls stabilized at 45 degrees or less

Please include the drilling and blasting plan to be used during the reduction of the highwall in pit 1. (DJ)

R647-4-113 – Surety

On the 113 tables under notes and assumptions: (DJ)

Has the fact that spreading of 6,176 CY of soil will have to be pushed up a ~3:1 slope been factored into the dozer production rate?

Is the dozer ripper production of 1750 CY/hr based upon a dozer with a ripper bar containing 3 rippers? The Division prefers a 3-ripper set-up on a dozer be used to relieve compaction.

Dozer rental time to place 28,104 CY of soil on the slopes of pit was estimated at 0.25 month. Rental rate to push 29,121 CY of soil in pit 2 is estimated at 0.45 month. Both are assuming a 150' haul. Please explain.

Dozer push to spread soil assumes a 150' push, but the efficiency in the notes and assumptions states that dozer production is based on a 100' push. Please clarify.

Dozer rental & production rate assumes pushing downhill. has the time required to back up a 2:1 slope been taken factored into the dozer efficiency?

A production rate of 1250 CY has been calculated for the dozer pushing and ripping downhill, all ripping should be completed on contour.

Rental for a Cat 988F FEL w/ EROPS, and an 8 CY bucket, in Dataquest bluebook 3Q02 is $12,710/mo, not $9255/mo as shown on the estimate.

The 345BL excavator rental of $14,945 as noted in Dataquest 3Q02 is equipped with a 2.5 CY bucket. The use of a 4 CY bucket on this machine will reduce the overall efficiency of this machine. Is an efficiency rating of 75% realistic utilizing this larger bucket?

The revegetation section indicates that a 2 CY excavator is planned for deep gouging/mixing in mulch. The Division prefers that a dozer with a 3 ripper set-up, ripping on contour, be used for roughening instead of gouging.

The pit 1 floor reclamation indicates that the dozer will be pushing 300'in some areas. Does the 400 CY/hr factor in double, and in some cases triple, handling of some material due to the distance of this push.

In the pit 2 reclamation, has the rental times & dozer efficiency spreading taken into account that a portion of this soil will be spread on 3:1 and 2:1 slopes?

Because of the distances for the majority of dozer pushes in this plan, the Division recommends the dozer used on site be equipped with a full U blade. The dozer as shown in the rental rates is equipped with a semi-U.

R647-4-115 - Confidential Information

The plan states that it contains no confidential material.